

Single-reviewer abstract screening misses 13% of relevant studies: A crowd-based, randomized controlled trial

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The Problem

The evidence base about the proportion of relevant studies that single-reviewer abstract screening misses is scarce.

Methods

- Crowd-based, online, parallel-group RCT
- Using Cochrane Crowd platform for abstract screening
- 1:1 random assignment of participants to 100 abstracts of a pharmacological or a public health topic
- **Primary outcome:** Accuracy of single-reviewer/dual-reviewer screening to correctly classify relevant and irrelevant studies compared with a reference standard of two published systematic reviews

Key Results

- 491 volunteers
- 280 volunteers from 60 countries met inclusion criteria (see below)* and were randomized to 100 abstracts:
 - 159 participants screened abstracts on a pharmacological topic
 - 121 participants screened abstracts on a public health topic
- 24,942 screening decisions
- Each abstract was screened 12 times on average
- Single-reviewer abstract screening missed about 13% of eligible studies (see Figure 1)

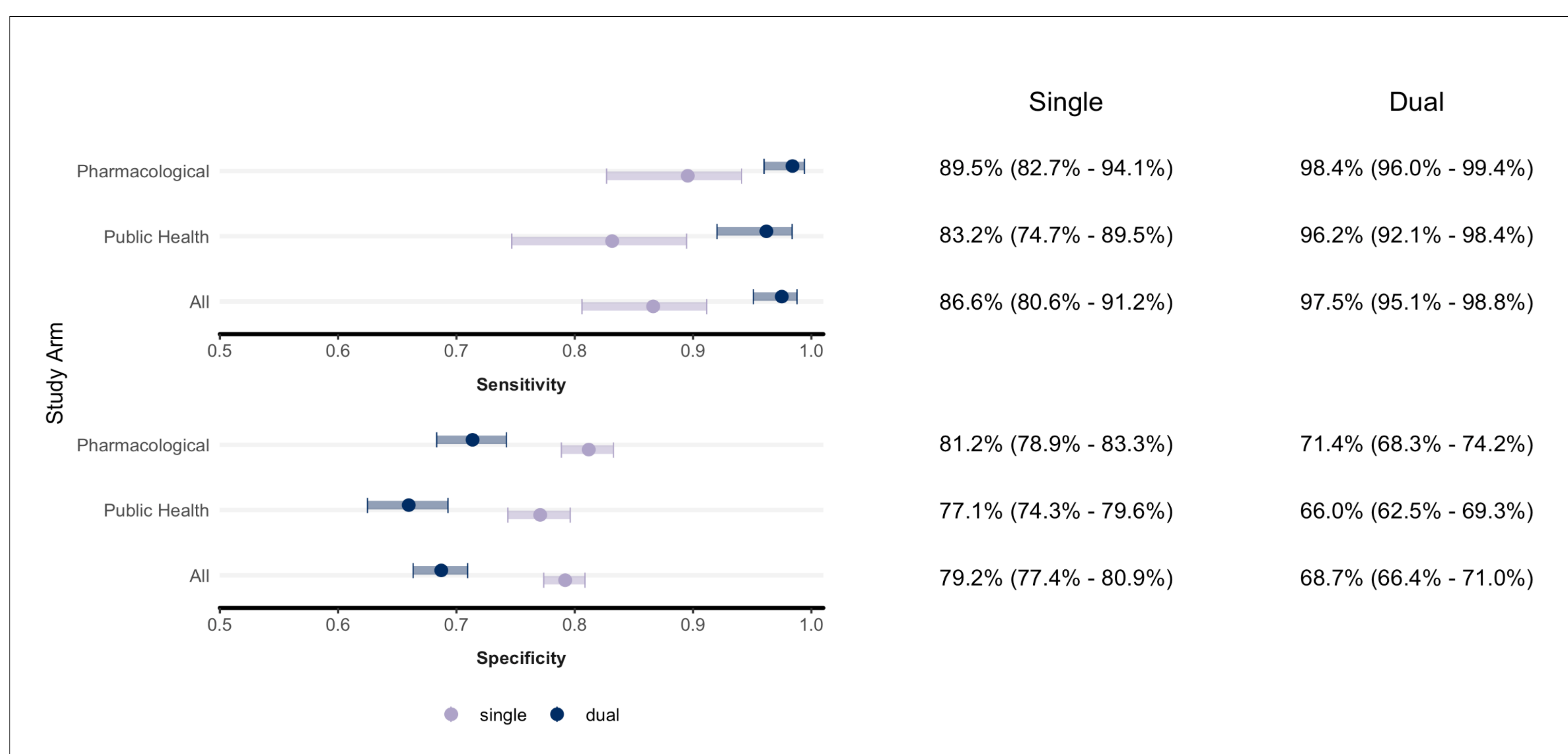


Figure 1: Sensitivities and specificities of single- and dual-reviewer abstract screening

MANY THANKS to our volunteers from all around the world.
(anyone who agreed to be named and screened at least 25 abstracts)

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